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The listing of the claims will replace all prior versions and listings of claims in the application:

**LISTING OF CLAIMS:**

Please cancel claims 1-18 and 50-58 without prejudice to pursue the claims in one or more divisional applications.

Please amend claims 19, 21, 28, 29, 36, 40, 42-45 and 49.

Please add new claims 59-81.

1. - 18. (cancelled)

19. (Currently Amended) A vehicular gas emission analyzer assembly for traveling with a vehicle, comprising:

a gas analyzer system having at least two analyzer components, one of said analyzer components operating at a particular temperature and another of said analyzer components operating at an elevated temperature that is higher than said particular temperature, said gas analyzer system adapted to measure at least one emission parameter from an internal combustion engine, said at least one emission parameter chosen from (i) concentration of at least one exhaust gas, (ii) mass of at least one exhaust gas, (iii) concentration of exhaust particulate matter; and (iv) mass of exhaust particulate matter; and

a housing for said gas analyzer system, said housing adapted to travel with a vehicle wherein said housing defines multiple at least two internal zones, said at least two internal zones commonly enclosed by said housing, one of said analyzer components being in one of said internal zones and the other of said analyzer components being in another of said internal zones wherein each of said at least two zones being at a different operating temperature temperatures.

20. (Original) The analyzer assembly in claim 19 for calculating the mass of said at least one exhaust gas in grams per each mile driven by the vehicle.

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21. (Currently Amended) The analyzer assembly in claim 19 wherein each of said internal zones has a substantially consistent temperature in a direction ~~laterally~~ of the housing and wherein said zones vary in temperature from each other in another direction longitudinally of the housing.

22. (Original) The analyzer assembly in claim 19 including a volumetric flow meter adapted to be attached to an exhaust tailpipe of the vehicle and wherein said mass is determined by resolving said measured concentration and volumetric exhaust gas flow measured by said volumetric flow meter.

23. (Original) The analyzer assembly in claim 19 including a probe adapted to withdraw exhaust from a vehicle tailpipe.

24. (Original) The analyzer assembly in claim 23 including a heated line connecting said probe with said housing.

25. (Original) The analyzer assembly in claim 19 wherein said gas analyzer system operates substantially uninfluenced by supplemental cooling.

26. (Original) The analyzer assembly in claim 19 wherein said gas analyzer system operates at a temperature that is at or above the dew point of the vehicle exhaust gas.

27. (Original) The analyzer assembly in claim 26 wherein said gas analyzer system further includes calculating means for compensating said emission parameter for the effect of humidity present in said exhaust gas.

28. (Currently Amended) The analyzer assembly in claim 26 wherein ~~said gas analyzer includes one of said at least two analyzer components comprises~~ a heated device for measuring concentration of hydrocarbon, said heated device at a temperature sufficiently high to reduce the deposit of hydrocarbon materials on said heated device.

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29. (Currently Amended) The analyzer assembly in claim 19 wherein ~~said gas analyzer includes one of said at least two analyzer components comprises~~ a heated device for measuring concentration of hydrocarbon, said heated device at a temperature sufficiently high to reduce the deposit of hydrocarbon materials on said heated device.

30. (Original) The analyzer assembly in claim 29 wherein said heated device comprises an infrared-based gas concentration reader.

31. (Original) The analyzer assembly in claim 29 wherein said heated device comprises a flame ionization device.

32. (Original) The analyzer assembly in claim 29 wherein said device for measuring concentration of hydrocarbon is heated to a temperature at or above 60 degrees centigrade.

33. (Original) The analyzer assembly in claim 32 wherein said gas analyzer is adapted to spark-ignition engines.

34. (Original) The analyzer assembly in claim 31 wherein said device for measuring concentration of hydrocarbon is heated to a temperature at or above 175 degrees centigrade.

35. (Original) The analyzer assembly in claim 34 wherein said gas analyzer is adapted to compression-ignition engines.

36. (Currently Amended) The analyzer assembly in claim 19 wherein ~~said gas analyzer includes one of said at least two analyzer components comprises~~ at least one device for measuring NO<sub>x</sub> which operates substantially without supplemental cooling of said exhaust gas.

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37. (Original) The analyzer assembly in claim 36 wherein said device for measuring NO<sub>x</sub> utilizes ultraviolet detection techniques.

38. (Original) The analyzer assembly in claim 36 wherein said device for measuring NO<sub>x</sub> utilizes a heated zirconia detector.

39. (Original) The analyzer assembly in claim 36 wherein said device for measuring NO<sub>x</sub> utilizes an electrochemical cell.

40. (Currently Amended) The analyzer assembly in claim 19 wherein said gas analyzer ~~includes one of said at least two analyzer components comprises~~ at least one device for measuring NO<sub>x</sub> which utilizes ultraviolet detection techniques.

41. (Original) The analyzer assembly in claim 40 wherein said gas analyzer includes an ultraviolet discharge lamp.

42. (Currently Amended) The analyzer assembly in claim 19 wherein said gas analyzer ~~includes one of said at least two analyzer components comprises~~ at least one gas detector to measure the concentration of at least one gas emitted from the engine, at least one pump to draw gas from the engine and at least one gas channel linking between said at least one detector and said at least one pump.

43. (Currently Amended) The analyzer assembly in claim 19 wherein said gas analyzer ~~system includes at least one gas analyzer~~ one of said at least two analyzer components is chosen from (i) a non-dispersive infrared analyzer, (ii) a Fourier transform infrared analyzer, (iii) an ultraviolet analyzer, (iv) a mass spectrometer, (v) a mass analyzer comprising an electromechanical oscillator holding a substrate onto which particulate matter can accumulate, and (vi) a mass analyzer comprising a filter substrate onto which particulate matter can accumulate.

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44. (Currently Amended) ~~A vehicular gas emission~~ The analyzer assembly for a vehicle, comprising:

~~a gas analyzer system adapted to determine at least one emission parameter from an internal combustion engine, said at least one emission parameter chosen from (i) concentration of at least one exhaust gas, (ii) mass of at least one exhaust gas, (iii) concentration of exhaust particulate matter; and (iv) mass of exhaust particulate matter; and~~

~~a housing for said gas analyzer system, in claim 19 including vibration dampening means for reducing vibration of said gas analyzer system.~~

45. (Currently Amended) The analyzer assembly in claim 44 wherein said vibration dampening means comprises shock-mounts for ~~at least one component making up said gas analyzer system~~ said at least two analyzer components.

46. (Original) The analyzer assembly in claim 44 wherein said vibration dampening means comprises shock-mounts for said housing.

47. (Original) The analyzer assembly in claim 44 including another housing supporting said housing, wherein said dampening means comprises spacers between said housing and said another housing.

48. (Original) The analyzer assembly in claim 47 wherein said dampening means further comprises shock-mounts for said another housing.

49. (Currently Amended) The analyzer assembly in claim 44 wherein ~~said gas analyzer system includes at least one gas analyzer one of said at least two analyzer components~~ chosen from (i) a non-dispersive infrared analyzer, (ii) a Fourier transform infrared analyzer, (iii) an ultraviolet analyzer, (iv) a mass spectrometer, (v) a mass analyzer comprising an electromechanical oscillator holding a substrate onto which particulate matter can accumulate, and (vi) a mass analyzer comprising a filter substrate onto which particulate matter can accumulate.

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50. - 58. (cancelled)

59. (New) The analyzer assembly in claim 19 wherein said at least two internal zones are separated by at least one dividing wall.

60. (New) The analyzer assembly in claim 19 wherein said at least two internal zones are opened to each other.

61. (New) The analyzer assembly in claim 19, said housing being substantially moisture impervious in order to be resistant to environmental elements.

62. (New) The analyzer assembly in claim 61 wherein said housing is adapted to mounting at an external portion of a vehicle body.

63. (New) The analyzer assembly in claim 61 wherein said housing has a length and a width, said length and width of said housing defining an aspect ratio, wherein said aspect ratio is greater than or equal to two (2).

64. (New) The analyzer assembly in claim 61 including a communication channel for communicating data from said at least one gas detector to a system outside of said housing.

65. (New) The analyzer assembly in claim 64 wherein said communication channel is a wireless communication channel.

66. (New) The analyzer assembly in claim 61 including vibration dampers to reduce vibration of components defining said gas analyzer system.

67. (New) The analyzer assembly in claim 61 wherein said gas analyzer system comprises one of a gasoline engine analyzer and a diesel engine analyzer.

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68. (New) The analyzer assembly in claim 61 wherein one of said at least two analyzer components comprises at least one gas analyzer chosen from (i) a non-dispersive infrared analyzer, (ii) a Fourier transform infrared analyzer, (iii) an ultraviolet analyzer, (iv) a mass spectrometer, (v) a mass analyzer comprising an electromechanical oscillator holding a substrate onto which particulate matter can accumulate, and (vi) a mass analyzer comprising a filter substrate onto which particulate matter can accumulate.

69. (New) The analyzer assembly in claim 19, said housing having a length and a width, a ratio of said length to said width defining an aspect ratio of said housing, wherein said aspect ratio of said housing is greater than or equal to two (2).

70. (New) The analyzer assembly in claim 69 wherein said housing is substantially in the form of a cylinder.

71. (New) The analyzer assembly in claim 70 wherein said housing is substantially in the form a circular cylinder.

72. (New) The analyzer assembly in claim 69 including an interface for retrieving measured parameters of a vehicle engine, wherein said measured parameters can be combined with an output of said gas analyzer system.

73. (New) The analyzer assembly in claim 72 wherein said measured parameters are in a serial data stream.

74. (New) The analyzer assembly in claim 69 including means for measuring flow rate of the emissions of the vehicle.

75. (New) The analyzer assembly in claim 74 wherein said means for measuring flow rate comprises a flow meter.

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76. (New) The analyzer assembly in claim 69 wherein said housing has an aerodynamic shape.

77. (New) The analyzer assembly in claim 69 wherein said housing is substantially moisture impervious in order to be resistant to environmental elements.

78. (New) The analyzer assembly in claim 69 wherein one of said at least two analyzer components is chosen from (i) a non-dispersive infrared analyzer, (ii) a Fourier transform infrared analyzer, (iii) an ultraviolet analyzer, (iv) a mass spectrometer, (v) a mass analyzer comprising an electromechanical oscillator holding a substrate onto which particulate matter can accumulate, and (vi) a mass analyzer comprising a filter substrate onto which particulate matter can accumulate.

79. (New) The analyzer assembly in claim 19 including a communication channel for communicating data from said at least one detector to a system outside of said housing.

80. (New) The analyzer assembly in claim 79 wherein said communication channel is a wireless communication channel.

81. (New) The analyzer assembly in claim 19 wherein said housing is adapted to mounting at an external portion of a vehicle body.

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